UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,084	11/17/2003	Stephen M. Zappala	16865-00018	3321

7590 03/21/2007

MIRICK O'CONNELL
MIRICK, O'CONNELL, DEMALLIE & LOUGEE, LLP
100 FRONT STREET
WORCESTER, MA 06108-1477

EXAMINER	
ANDERSON, JAMES D	
ART UNIT	PAPER NUMBER
1614	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/715,084	ZAPPALA, STEPHEN M.	
	Examiner	Art Unit	
	James D. Anderson	1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claims

Claims 1-8 are currently pending and are the subject of this Office Action. This is the first Office Action on the merits of the claims.

Priority

This application is a continuation of, and claims priority from, United States Patent Application serial number 09/656,050, filed on September 6, 2000 (now U.S. Patent No. 6,648,872; Issued 11/18/2003) which is a continuation of, and claims priority from, United States Provisional Patent Application serial no. 60/152/718, filed September 7, 1999.

Applicant is requested to amend the status of U.S. Application No. 09/656,050 in the "Cross Reference to Related Application" section of the Specification by indicating that the application is now U.S. Patent No. 6,648,872.

Information Disclosure Statement

No Information Disclosure Statement has been filed in the instant application. Applicant is reminded of his duty to disclose prior art relevant to the patentability of the instant claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8 are rejected under 35 U.S.C. § 102(b) as being anticipated by Valvano and Leffler (Annals of Emergency Medicine, 1996, vol. 27, no. 4, pages 490-492) (newly cited art).

Valvano and Leffler teach of a combination of 1% lidocaine/0.25% bupivacaine that is premixed and injected into the finger of human subjects to elicit local anesthesia/digital nerve block (Abstract; page 491, "Materials and Methods").

The reference thus teaches the limitations of instant claims 1-8.

Claims 1-8 are rejected under 35 U.S.C. § 102(b) as being anticipated by Liang *et al.* (American Journal of Ophthalmology, 1998, vol. 125, pages 191-196) (newly cited art).

Liang *et al.* teach of an intraocular injection of a 1:1 mixture of 2% lidocaine and 0.75% bupivacaine (final lidocaine concentration of 1%) (Abstract; Table 1). The lidocaine and bupivacaine were premixed prior to injection (page 191, "Methods").

The reference thus teaches the limitations of instant claims 1-8.

Claims 1-8 are rejected under 35 U.S.C. § 102(b) as being anticipated by Serour *et al.* (Acta Anaesthesiol. Scand., 1998, vol. 42, pages 926-928) (newly cited art).

Serour *et al.* teach the slow injection of a solution comprising 2% lidocaine mixed with 0.5% bupivacaine (final lidocaine concentration of 1%) (Abstract; page 926, "Materials and Methods").

The reference thus teaches the limitations of instant claims 1-8.

Claims 1-8 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hustead *et al.* (U.S. Patent No. 4,938,970; Issued Jul. 3, 1990) (newly cited art).

Hustead *et al.* teach of compositions comprising local anesthetics dissolved in a buffered solution containing salts, which do not cause pain when the solutions are administered (Abstract). Said solutions may contain one or more local anesthetics (col. 2, lines 18-21 and claim 4). Preferred anesthetics include lidocaine and bupivacaine (*id.* at lines 43-45). The reference teaches that the compositions may be injected (col. 3, lines 5-8). Lidocaine hydrochloride is typically present in a dose of 0.25 to 5% (*id.* at lines 39-43).

The reference thus anticipates the instantly claimed methods and compositions comprising a combination of lidocaine and bupivacaine.

Claims 5-8 are rejected under 35 U.S.C. § 102(b) as being anticipated by Mantelle (U.S. Patent No. 5,234,957; Issued Aug. 10, 1993) (newly cited art).

Mantelle teaches compositions for topical administration comprising at least one local anesthetic, and in other embodiments, two local anesthetics (col. 4, lines 5-39 and col. 12, line 59 to col. 13, line 7). The local anesthetics include lidocaine and bupivacaine (col. 5, lines 57-68) and may be present as hydrochloride salts (col. 6, lines 1-9). The concentration of local

anesthetics may be low (about 1%) to high (40% or higher) (col. 8, lines 30-31). Compositions comprising lidocaine and bupivacaine HCl are exemplified in Examples 6 and 7.

The reference thus teaches compositions comprising lidocaine HCl and bupivacaine HCl.

Claims 5-8 are rejected under 35 U.S.C. § 102(e)(2) as being anticipated by Rivlin (U.S. Patent No. 5,849,334; Issued Dec. 15, 1998, Filed Sep. 29, 1997) (newly cited art).

Rivlin teaches of compositions comprising local anesthetics and emu oil (Abstract). It is noted that the "comprising" language of the instant claims allows for the presence of other agents, including the emu oil taught in Rivlin. More than one local anesthetic may be used in the compositions taught in Rivlin (col. 4, lines 59-60 and claim 8). The local anesthetics can be lidocaine hydrochloride and/or bupivacaine hydrochloride in amount ranging from 0.5% to 5% (lidocaine) and 0.25% to 0.75% (bupivacaine) (col. 4, line 54 to col. 5, line 3).

The reference thus teaches the limitations of instant claims 5-8.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Liam *et al.* (Canadian Journal of Anaesthesia, 1998, vol. 45, no. 7, pages 645-650) and Liu *et al.* (Anesth. Analg., 1997, vol. 84, pages 115-119).

Liam *et al.* disclose a dose response study of 1% lidocaine for spinal anesthesia for lower limb and perineal surgery (Abstract). 1% lidocaine hydrochloride was intrathecally injected into subject patients (Abstract; page 646, "Methods"). Immediately after injection, the level of sensory analgesia was evaluated by pin-prick (*id.*). The reference thus teaches injection of a solution of 1% lidocaine hydrochloride to a patient. The reference does not teach a combination of lidocaine and bupivacaine.

Liu *et al.* disclose injection of a 0.75% bupivacaine solution to patients (Abstract; page 115-116, "Methods"). The solution was administered intrathecally (*id.*) and differential sensory block evaluated (pages 116-118, "Results"). The reference thus teaches injection of bupivacaine to a patient to induce analgesia. The reference does not teach a combination of bupivacaine and lidocaine.

However, in the absence of a showing of unexpected results, commensurate in scope with the claims, the instantly claimed method and composition would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made. Lidocaine and bupivacaine were well-known in the art as local and regional anesthetics. Further, both drugs are traditionally administered by injection. As such, it would have been obvious to combine two local/regional anesthetics into a single composition. Lidocaine and bupivacaine are individually known in the art as agents for inducing anesthesia, whose efficacy when administered alone is well established. It is generally obvious to combine two compositions, each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. *In re Kerkhoven*, 205 U.S.P.Q. 1069 (CCPA 1980). The idea for combining

said compositions flows logically from their having been individually taught in the prior art. *In re Crockett*, 126 U.S.P.Q. 186, 188 (CCPA 1960).

Accordingly, to establish obviousness in such fact situations it is NOT necessary that the motivation come explicitly from the reference itself. The natural presumption that two individually known anesthetics agents would, when combined, provide a third composition also useful for inducing anesthesia flows logically from each having been individually taught in the prior art. Applicant has presented no evidence (*e.g.* unexpected results) to rebut this natural presumption.

Claims 1-8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Dhaliwal *et al.* (U.S. Patent No. 5,149,320; Issued Sep. 22, 1992).

Dhaliwal *et al.* disclose aqueous compositions for reducing pain at the site of injection of local anesthetics (Abstract). Lidocaine HCl and bupivacaine HCl are disclosed as preferred parenteral anesthetics (col. 4, lines 34-44). At columns 3-8, the pharmacological data of lidocaine HCl and bupivacaine HCl are provided. It is clear from this data that these anesthetics are used for the same purposes (e.g. peripheral nerve block and sympathetic block) and are both administered by injection. Further, lidocaine HCl is indicated to be injected as a 1% solution.

Thus, in the absence of a showing of unexpected results, commensurate in scope with the claims, the instantly claimed method and composition would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made. Lidocaine HCl and bupivacaine HCl were well-known in the art as local and regional anesthetics. Further, both drugs are traditionally administered by injection. As such, it would have been obvious to

combine two local/regional anesthetics into a single composition. Lidocaine and bupivacaine are individually known in the art as agents for inducing anesthesia, whose efficacy when administered alone is well established. It is generally obvious to combine two compositions, each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. *In re Kerkhoven*, 205 U.S.P.Q. 1069 (CCPA 1980). The idea for combining said compositions flows logically from their having been individually taught in the prior art. *In re Crockett*, 126 U.S.P.Q. 186, 188 (CCPA 1960).

Accordingly, to establish obviousness in such fact situations it is NOT necessary that the motivation come explicitly from the reference itself. The natural presumption that two individually known anesthetics agents would, when combined, provide a third composition also useful for inducing anesthesia flows logically from each having been individually taught in the prior art. Applicant has presented no evidence (*e.g.* unexpected results) to rebut this natural presumption.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James D. Anderson whose telephone number is 571-272-9038. The examiner can normally be reached on MON-FRI 9:00 am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel can be reached on 571-272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James D. Anderson, Ph.D.
Patent Examiner
AU 1614

March 12, 2007

Phyllis Spivack
3/13/07

PHYLLIS SPIVACK
PRIMARY EXAMINER